



Smart Village Stanz

Fritz Pichler

2nd Meeting of the European Smart
Villages Pilot Observatory

28. 11. 2023



PREPARATORY ACTION ON
**Smart Rural Areas
in the 21st Century**







1,821 CITIZENS
77 KM² AREA
80% FOREST LAND
RURAL VILLAGE
INDUSTRIAL REGION
140 KM SOUTHWEST OF VIENNA

STANZ IM MÜRZTAL

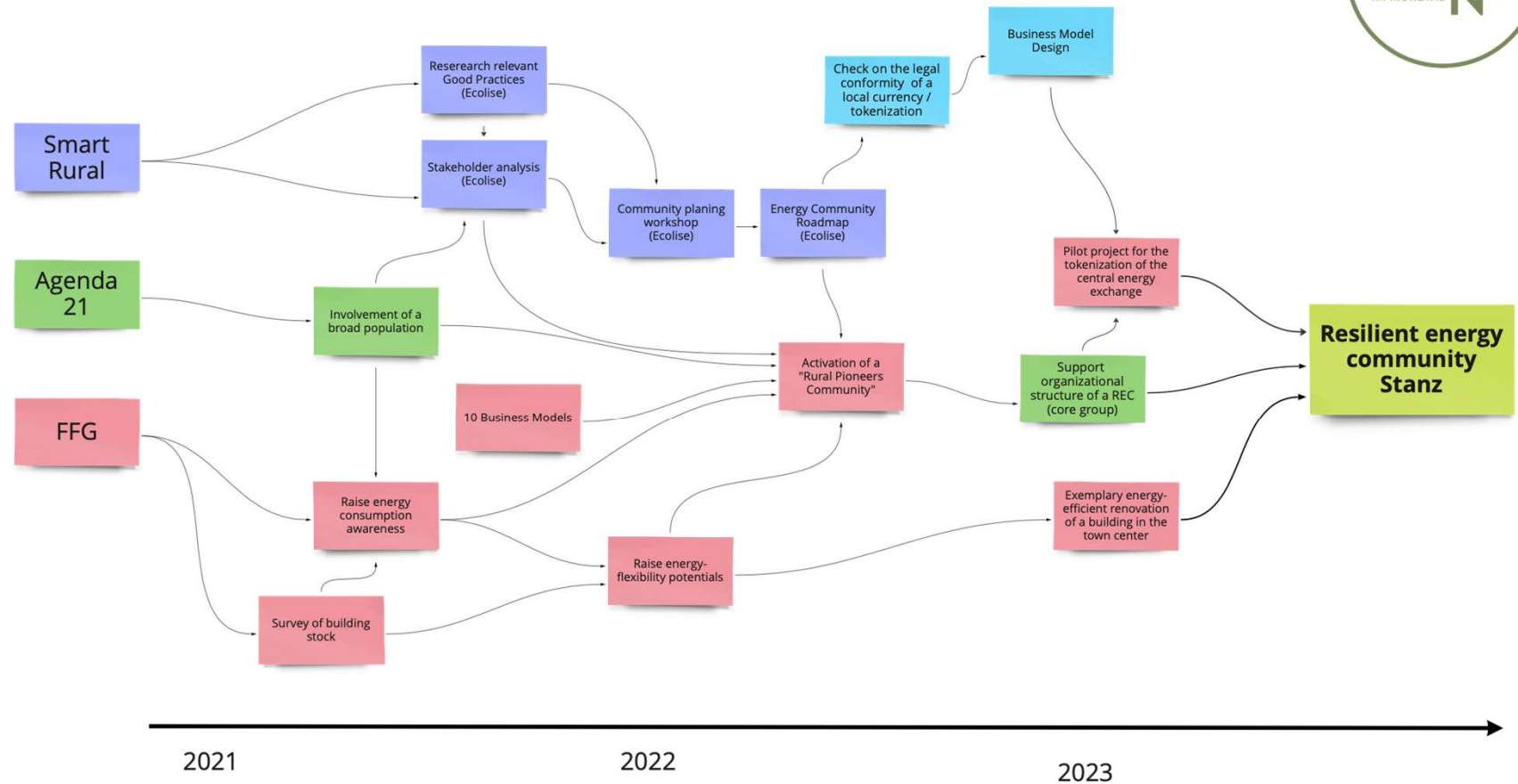
INNOVATION PROCESS



Social Innovation

Participation / Co-Creation

Technical Innovation



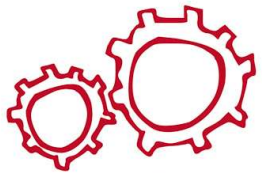
Synergetic complementary projects

Stanz+ (FFG) 2020 - 2023

Agenda 21 (Province Styria) 2021 - 2023

Smart Rural Areas (EU-Commission) 2021 - 2022

LOCAL DEVELOPMENT STRATEGY - LAG MARIAZELLERLAND MÜRZTAL 2023-2027



VALUE CREATION



**CULTURAL &
NATURAL
RESOURCES**



**PUBLIC
WELFARE
INFRASTRUCTURES**



**CLIMATE
PROTECTION
AND ADAPTATION**



PREPARATORY ACTION ON
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**SMART VILLAGE
STANZ**



STANZ+

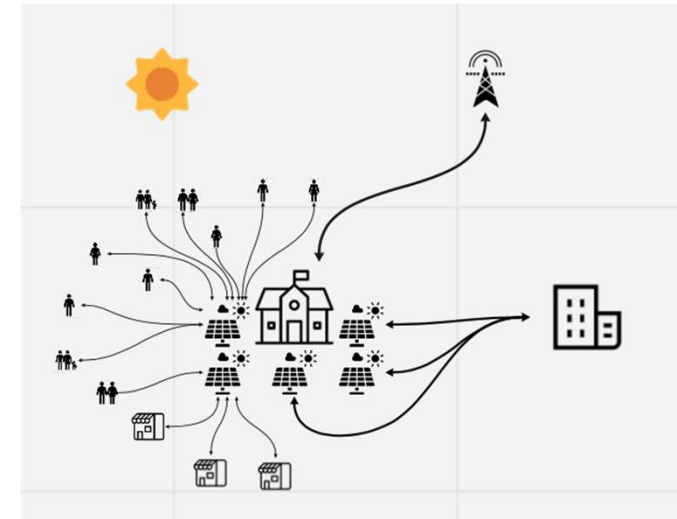
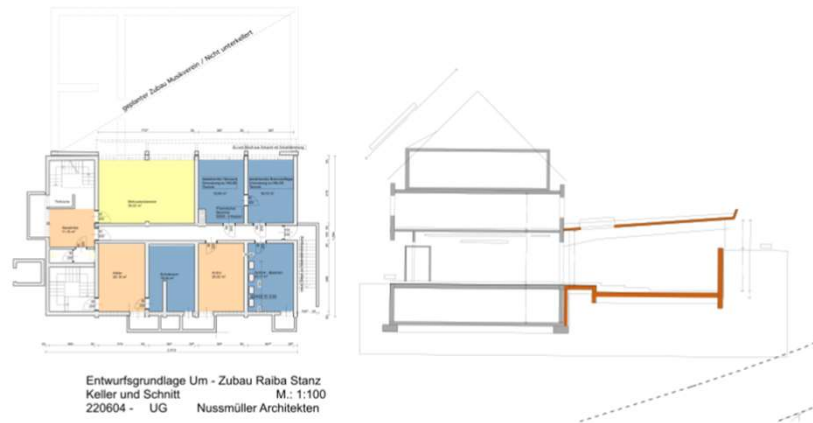
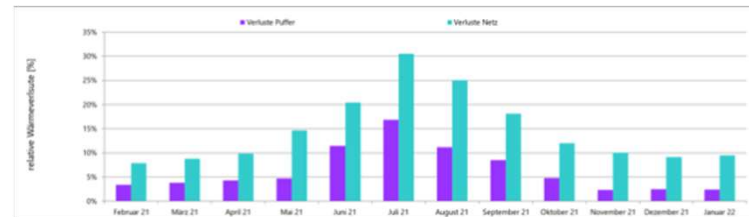
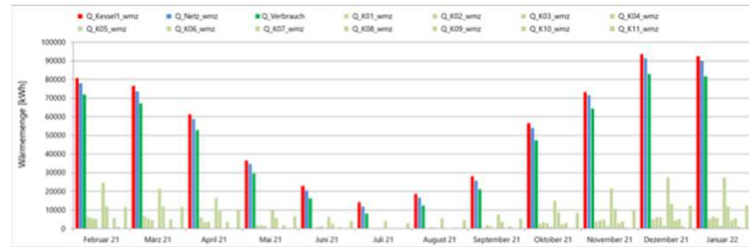
Creation of a "best practice" for an innovative PlusEnergy district in the center of the rural community of Stanz im Mürztal.

725,000 Euro

Austrian Research Promotion Agency (FFG)



- Nahwärme Obere Stanz
- Holz (Pellets/ Hackschnitzel/ Stück)
- Gas
- Heizöl
- Nicht beheizt





Mit Unterstützung von Bund, Ländern und Europäischer Union

 Bundesministerium
Land- und Forstwirtschaft,
Regionen und Wasserwirtschaft



Europäischer
Landwirtschaftsfonds für
die Entwicklung des
ländlichen Raums.
Hier investiert Europa in
die ländlichen Gebiete.



STANZ: OUR POWER

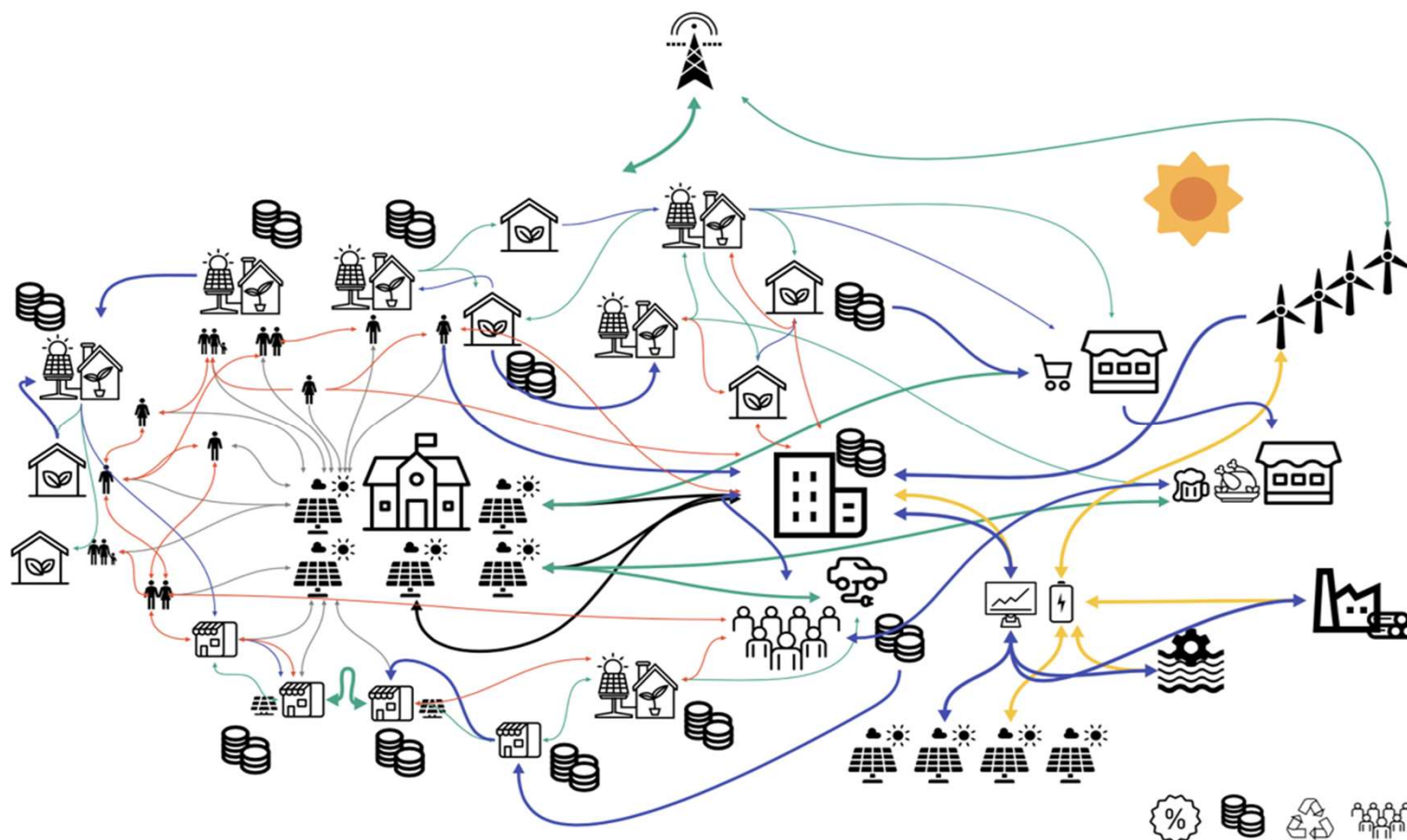
Engagement and participation process to establish a renewable energy community in accordance with the EU Renewable Energy Directive II. Financing of legal advice and establishment of organizational structure.

75,000 Euro

Local Agenda 21, Province of Styria / Climate and Energy Fund Austria



Local Energy Group STANZERTAL







PREPARATORY ACTION ON
Smart Rural Areas
in the 21st Century



SMART VILLAGE STANZ

Local energy transformation and preparation of a local energy
currency based on blockchain technology.

60,000 Euro

Preparatory Action on Smart Rural Areas in the 21st Century



Prepared in the framework of the project on:
Preparatory Action on Smart Rural Areas in the 21st Century



Energy Community in
Stanz im Mürtztal

**BEST PRACTICES OF
RENEWABLE ENERGY COMMUNITIES**

July 2021



Energy Community in
Stanz im Mürtztal

STAKEHOLDER ANALYSIS

June 2021



Stanz Token

*Examining opportunities to combine a digital local
currency with a renewable energy community in Stanz
im Mürtztal.*

Final Version

Agentur SCAN
Caliber Consult GmbH
ABC Research GmbH

Stanz im Mürtztal / Vienna
29th June 2022

Basic equipment for DePIN installed

10 members of EEG Stanzertal equipped with smart meter extensions (energy trackers) for reading, notarisation and transmission of real-time data

WebApp developed

- Data visualisation via dashboard
- Simulation of energy distribution according to EAG in real time
- Consumption advisor
- Device manager



Collective
Ownership

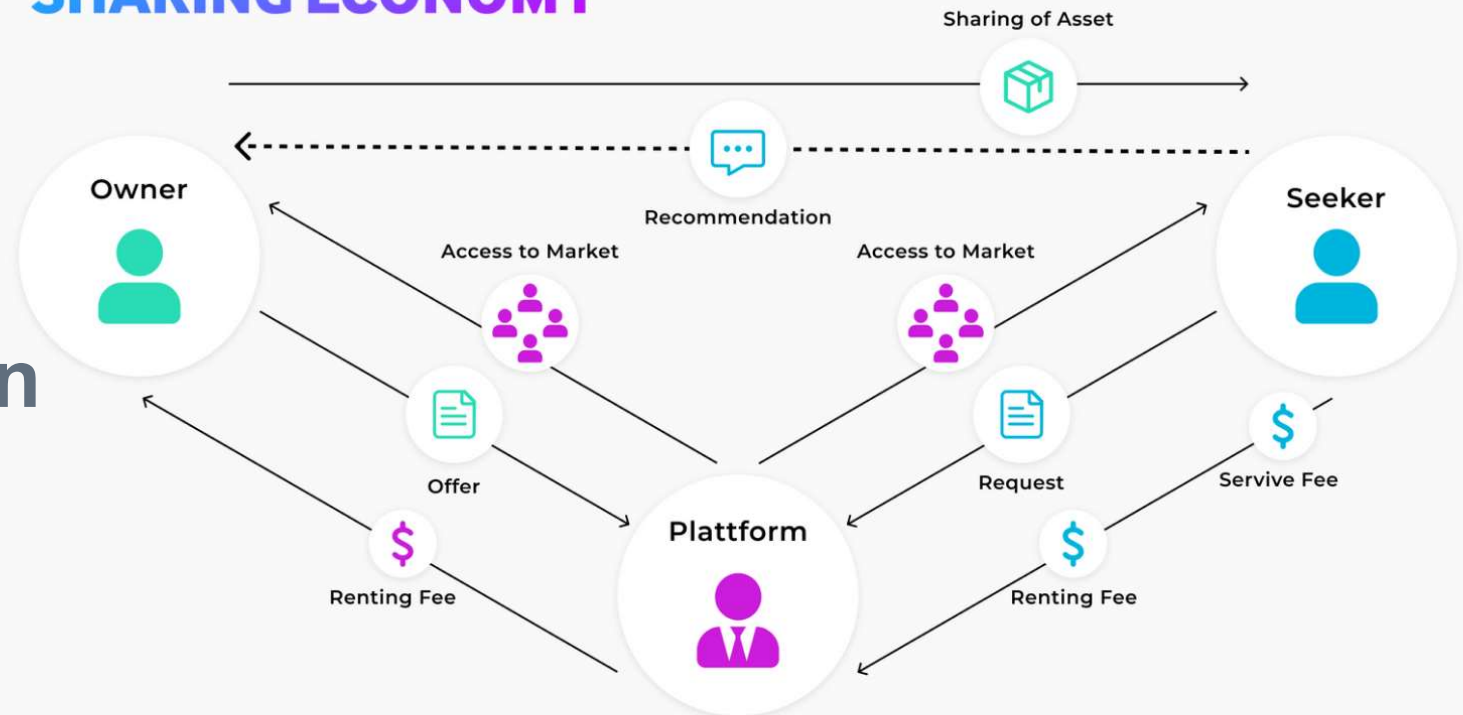
Distributed
Infrastructure

Decentralization

Open Competition
and Innovation



SHARING ECONOMY

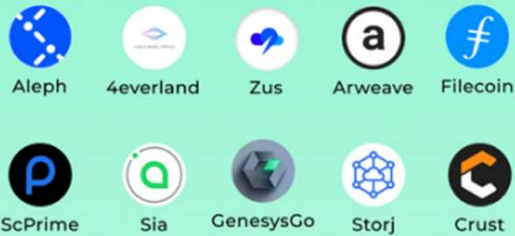


DEPIN LAYER

IoTeX APR 2023

Server

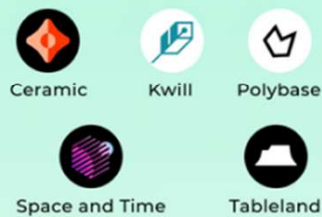
Storage



Compute



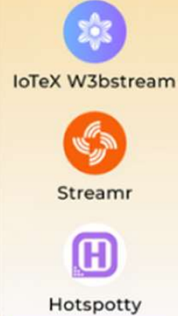
Warehouse



VPN



Infra



Sensor

Mobility



Environmental



Smart City



Energy



Smart Home



HealthCare



General



Wireless

WiFi



5G



LoRaWAN



Bluetooth



Hybrid



CDN



Next project to complete: „WEB3 powered Smart Grid" and transfer it to a real laboratory



- Integration of energy trackers in all households that are part of the EEG (up to 250 households)
- Integration of smart home devices (electric car charging stations, battery systems, heat pumps, electric boilers, etc.) for automatic consumption control
- (load shifting).
- Conceptualisation and implementation of an autonomous peer-to-peer trading system, making maximum use of the legal framework provided by EAG and EIWG.
- Financing and integration (into the EEG) of at least one large-scale PV system with the help of a citizen participation model (crowd Funding/Fractional Ownership)
- Final development and implementation of the concept for creating a local energy currency (Stanzertaler) to incentivise sustainable consumption behaviour
- OPTIONAL: Multiple participation of EEG members, e.g. in BEGs, integration of EEG in external markets (wholesale, balancing energy, etc.), integration of the local heating network



**THANKS FOR YOUR
ATTENTION**